Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Original) A method comprising:

receiving frames partitioned into multiple timeslots;

reading a timeslot lookup table including an entry that specifies an assignment corresponding to a timeslot; and

storing data associated with a particular timeslot in a memory location based on the assignment, with data from a particular channel included in timeslots having a data assignment stored in contiguous memory locations.

2. (Original) The method of claim 1 wherein the assignments include a voice timeslot, an unassigned timeslot, and a data timeslot.

3. (Original) The method of claim 1 further comprising calculating the number of timeslots associated with a set of data timeslots.

4. (Original) The method of claim 3 wherein calculating the number of timeslots includes locating a start-point and an end-point of consecutive channels in a frame having the same assignment.

5. (Original) The method of claim 3 wherein calculating the number of timeslots includes locating a start-point and an end-point of a set of data non-consecutive channels in a frame having the same assignment.

6. (Original) The method of claim 2 wherein timeslots having a voice assignment or an unassigned timeslot separate the timeslots having a data assignment in the frame.

7. (Original) The method of claim 2 wherein storing the data comprises:
    storing the data included associated with voice timeslots in a first memory;
    storing the data associated with data timeslots in a second memory; and
    discarding the data associated with unassigned timeslots.

8. (Original) The method of claim 2 wherein storing the data comprises:
    storing the data associated with voice timeslots in a first subset of locations in the memory;
    storing the data associated with data timeslots in a first subset of locations in the memory; and
    discarding the data associated with unassigned timeslots.

9. (Original) The method of claim 1 further comprising storing the frames associated with a voice assignment in a memory in the order the frames are received.

10. (Original) The method of claim 1 further comprising storing the frames associated with a voice assignment such that all voice assignment frames from a channel for a particular frame are stored contiguously.

11. Cancelled.

12. Cancelled.

13. Cancelled.

14. Cancelled.

15. Cancelled.

16. Cancelled.

17. (Currently Amended) A computer program product, tangibly embodied in ~~an information carrier~~ a machine-readable medium, for executing instructions on a processor, the computer program product being operable to cause a machine to:

receive frames partitioned into multiple timeslots;

read a timeslot lookup table including an entry that specifies an assignment corresponding to a timeslot; and

store data associated with a particular timeslot in a memory location based on the assignment, with data from a particular channel included in timeslots having a data assignment stored in contiguous memory locations.

18. (Original) The computer product of claim 17 wherein the assignments include a voice timeslot, an unassigned timeslot, and a data timeslot.

19. (Currently Amended) The computer product of claim 17 further ~~configured~~ operable to cause the machine to calculate the number of timeslots associated with a set of data timeslots.

20. (Currently Amended) The computer product of claim 18 further ~~configured~~ operable to cause the machine to store the data included in a set of data in contiguous timeslots.

21.   (Currently Amended)   The computer product of claim 20 further ~~configured~~ operable to cause the machine to

store the data included associated with voice timeslots in a first memory;

store the data associated with data timeslots in a second memory; and

discard the data associated with unassigned timeslots.

22.   (Currently Amended)   The computer product of claim 18 further ~~configured~~ operable to cause the machine to:

store the data associated with voice timeslots in a first subset of locations in the memory;

store the data associated with data timeslots in a first subset of locations in the memory; and

discard the data associated with unassigned timeslots.

23.   (Currently Amended)   A system comprising:

a router including a processor; and ~~configured to:~~

a computer program product, tangibly embodied on a computer-readable medium, comprising instructions to cause the processor to

receive frames partitioned into multiple timeslots;

read a timeslot lookup table including an entry that specifies an assignment corresponding to a timeslot; and

store data associated with a particular timeslot in a memory location based on the assignment, with data from a particular channel included in timeslots having a data assignment stored in contiguous memory locations.

24.   (Currently Amended)   The system of claim 23 wherein the instructions further cause the processor ~~is further~~

~~configured~~ to calculate the number of timeslots associated with a channel in a frame having the same assignment.

25.   (Currently Amended) The system of claim 24 wherein <u>the instructions further cause</u> the processor ~~is further configured~~ to store the data included in a set of data in contiguous timeslots.

26.   (Currently Amended) The system of claim 25 wherein <u>the instructions further cause</u> the processor ~~is further configured~~ to:

store the data included associated with voice timeslots in a first memory;

store the data associated with data timeslots in a second memory; and

discard the data associated with unassigned timeslots.

27.   (Currently Amended) The system of claim 25 wherein <u>the instructions further cause</u> the processor ~~is further configured~~ to:

store the data associated with voice timeslots in a first subset of locations in the memory;

store the data associated with data timeslots in a first subset of locations in the memory; and

discard the data associated with unassigned timeslots.

28.   (Withdrawn) A finite state machine comprising instructions to cause the state machine to:

scan a timeslot lookup table, the timeslot lookup table including assignments associated with timeslots of a partitioned frame;

determine the start of a channel of data in the frame; and

determine the end of the channel of data in the frame.

29. (Withdrawn) The finite state machine of claim 28 further comprising instructions causing the finite state machine to calculate the length of a channel based on the determination of the start of the channel and the end of the channel.

30. (Withdrawn) The finite state machine of claim 28 further comprising instructions causing the finite state machine to store the length of a channel in a memory.

31. (New) The computer product of claim 19 configured to calculate the number of timeslots further configured to locate a start-point and an end-point of consecutive channels in a frame having the same assignment.

32. (New) The computer product of claim 19 configured to calculate the number of timeslots further configured to locate a start-point and an end-point of a set of data non-consecutive channels in a frame having the same assignment.

33. (New) The system of claim 23 wherein the instructions further cause the processor to calculate the number of timeslots associated with a set of data timeslots.

34. (New) The system of claim 33 wherein the instructions further cause the processor to calculate the number of timeslots further configured to locate a start-point and an end-point of consecutive channels in a frame having the same assignment.

35. (New) The system of claim 33 wherein the instructions further cause the processor to calculate the number of timeslots

further configured to locate a start-point and an end-point of a set of data non-consecutive channels in a frame having the same assignment.